



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22315-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,211	01-13-2002	Kilian Peetz	GR-GRA-101 / 500704.20002	4397
26419	7590	06/08/2004	EXAMINER	
FULLER, ERIC B				
ART UNIT			PAPER NUMBER	
1762				

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,211

Examiner

Eric B Fuller

Applicant(s)

PEETZ ET AL

Art Unit

1762

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB-08)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicant has added the limitation of the process temperature being greater than 1000 degrees Celsius. The specification does not have adequate support for the claimed temperature range of "greater than 1000 degrees Celsius".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hüttinger et al. (WO 98/21163).

Hüttinger teaches a CVI process for depositing SiC into a preform (abstract). The precursor is taught on page 7, lines 6-30. The carrier gas, hydrogen or hydrogen chloride, is taught to be within the applicant's range (page 15, lines 15-29). The reference discloses pressures within the applicants range (Embodiment 3 and 8). The porosity is within the applicant's range (figure 5; page 5, lines 30-34). Figure 4 teaches the preconditioning step. The product of the reference reads on claims 13 and 14. The examples teach a process temperature of 1,100 degrees Celsius, thus fails to explicitly teach a process temperature of greater than 1,100 degrees Celsius. However, "a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties." See *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). In view of this, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use temperatures within the applicant's claimed range in the process taught by Hüttinger, by doing so one would have a reasonable expectation of success, since the difference between the taught range and the claimed range is infinitesimally small. Additionally, it is noted that differences in temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration of temperature is critical. See *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969) and MPEP 2144.05. The applicant has not shown the criticality between 1,100 degrees Celsius and 1,100.01 degrees Celsius.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hüttinger et al. (WO 98/21163), as applied to claim 1 above, and further in view of Murphy et al. (US 4,407,885).

Hüttinger teaches the limitations of claim 1, as shown above, but is silent in teaching how the preform is made. However, Murphy teaches a method of forming preforms that read on the applicant's method (column 13, lines 18-50). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the method taught by Murphy to construct the preforms in the process taught by Hüttinger. By doing so, one would have a reasonable expectation of success, as Hüttinger is silent to how the preform is produced and Murphy teaches an art recognized suitable process for producing a preform.

Claims 1-9, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hüttinger et al. (WO 98/21163) in view of Linn et al. (US 6,143,376).

Hüttinger teaches a CVI process for depositing SiC into a preform (abstract). The precursor is taught on page 7, lines 6-30. The carrier gas, hydrogen or hydrogen chloride, is taught to be within the applicant's range (page 15, lines 15-29). The reference discloses pressures within the applicants range (Embodiment 3 and 8). The porosity is within the applicant's range (figure 5; page 5, lines 30-34). Figure 4 teaches the preconditioning step. The product of the reference reads on claims 13 and 14. The examples teach a process temperature of 1,100 degrees Celsius, thus fails to explicitly

teach a process temperature of greater than 1,100 degrees Celsius. However, Linn teaches the art recognized suitability of using 1,200 degrees Celsius as the process temperature. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize 1,200 degrees Celsius as the process temperature in Hüttinger. By doing so, one would have a reasonable expectation of success, as Linn teaches the art recognized suitability of using 1,200 degrees Celsius as the process temperature.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hüttinger et al. (WO 98/21163) in view of Linn et al. (US 6,143,376), as applied to claim 1 above, and further in view of Murphy et al. (US 4,407,885).

Hüttinger, in view of Linn, teaches the limitations of claim 1, as shown above, but is silent in teaching how the preform is made. However, Murphy teaches a method of forming preforms that read on the applicant's method (column 13, lines 18-50). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the method taught by Murphy to construct the preforms in the process taught by Hüttinger, in view of Linn. By doing so, one would have a reasonable expectation of success, as Hüttinger is silent to how the preform is produced and Murphy teaches an art recognized suitable process for producing a preform.

Response to Arguments

Applicant argues that Hüttinger fails to anticipate claim 1, as amended.

Examiner agrees and has withdrawn the rejections accordingly. However, applicant's arguments are moot in view of the new grounds of rejection.

Applicant argues the compatibility of Hüttinger with Murphy. Applicant argues that the preforms would melt under the process conditions of the claims. This is not found convincing. The difference is process temperature claimed and that taught by the reference is infinitesimally small. There is no reason to believe that the preform would melt at temperatures marginally larger than that taught by the reference. Additionally, the preforms in the reference read on those of the claims, if applicant wishes to pursue this argument further, it will be considered an admission that the claims are missing critical or essential subject matter that prevents the preforms from melting.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 1762

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B Fuller whose telephone number is (571) 272-1420. The examiner can normally be reached on Mondays through Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck, can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EBF



TIMOTHY MEEKS
PRIMARY EXAMINER